Contents

Tables and Figures x
Foreword xvii
CLARK S. BINKLEY

Introduction 3
PETER N. NEMETZ

FORESTS AND THE ENVIRONMENT

1 The Role of Air Pollution in Forest Decline 48
JUDITH CLARKSON AND JURGEN SCHMANDT

2 Forest-Climate Interactions: Implications for Tropical and Boreal Forests 72
B.I. KRONBERG AND W.S. FYFE

3 Climate Change and the Role of Forest Policy 86
FREDERICK W. CUBBAGE, JAMES L. REGENS, AND DONALD G. HODGES

TIMBER SUPPLY

4 Rehabilitating the Backlog of Unstocked Forest Lands in British Columbia: A Preliminary Simulation Analysis of Alternative Strategies 99
W.A. THOMPSON, P.H. PEARSE, G.C. VAN KOOTEN, AND I. VERTINSKY

5 Long-Term Timber Supply Prospects in the United States: An Analysis of Resources and Policies in Transition 131
DARIUS M. ADAMS

6 Rationing the Supply of Timber: The Swedish Experience 157
J. HANSING AND S. WIBE

Competitiveness and International Trade in Forestry

7 Comparative Advantage in Timber Supply: Lessons from History and the Timber Supply Model 171
KENNETH S. LYON AND ROGER A. SEDJO

8 Technical Change in the Forest-Based Sector 187
DAVID N. BENGSTON AND HANS M. GREGERSEN

9 A Comparison of the Productivity Performance of the U.S. and Canadian Pulp and Paper Industries 212
TAE HOON OUM AND MICHAEL W. TRETHEWAY

10 The Impact of the Free Trade Agreement on the U.S. Forestry Sector: A General Equilibrium Analysis 236
ROY BOYD AND KERRY KRUTILLA

11 Canada-United States Trade in Forest Products: Issues and Uncertainties 254
IRVING K. FOX

12 The Economic Impact on British Columbia of Removing Log Export Restrictions 273
MICHAEL MARGOLICK AND RUSSELL S. UHLER

Social Impacts of Forestry

13 Distributive Issues in Forest Policy 297
DAVID N. WEAR AND WILLIAM F. HYDE

14 Instability in Forestry and Forestry Communities 315
PETER BERCK, DIANA BURTON, GEORGE GOLDMAN, AND JACQUELINE GEOGHEGAN

15 Global Markets in Forest Products: Sociological Impacts on Kyoto Prefecture and British Columbia Interior Forest Regions 339
M. PATRICIA MARCHAK

Multiple Resource Use and Forestry

16 Multiple-Use Forestry: Management of a California National Forest Watershed for Augmented Water Yields 370
MICHAEL D. BOWES, JOHN V. KRUTILLA, AND THOMAS B. STOCKTON

17 Policies for the Management of Temperate Mountain Forests: A Comparison from Switzerland and Colorado 407
MARTIN F. PRICE

FORESTRY AND THE THIRD WORLD

18 Social Forestry: A Working Definition and 21 Testable Hypotheses 430
WILLIAM F. HYDE
19 Property Rights as Authority Systems: The Role of Rules in Resource Management 453
DANIEL W. BROMLEY
20 Property and Forestry 471
JOHN W. BRUCE AND LOUISE FORTMANN
21 Wood Energy Policy Development: Lessons from Kenya 497
RUTGER J. ENGELHARD
22 Can Tropical Forest Management Systems Be Economic? 505
ROGER A. SEDJO

Comprehensive Bibliography 519
Contributors 565
Index 569